APPARATUS FOR FEEDING A GASEOUS AND/OR LIQUID MEDIUM TO A ROTATING

PRESSURIZED SYSTEM

## CROSS REFERENCE TO RELATED APPLICATIONS

This application is the US national phase of PCT application PCT/DE2003/004011, filed 4 December 2003, published 17 June 2004 as WO 2004/051130, and claiming the priority of German patent application 10256537.6 itself filed 4 December 2002, whose entire disclosures are herewith incorporated by reference.

## FIELD OF THE INVENTION

The invention relates to an apparatus or device for feeding a gaseous and/or liquid medium to a rotating pressurized system, provided with a stationary seal-head housing with a connection port for the medium to which a connection passage extending into the seal-head housing is connected, as well as with a tubular rotor connected with the pressurized system and also extending into the sealhead housing, and furthermore with a stator seal at an end of the connection passage and a rotor seal on an end of the rotor, the stator seal and the rotor seal being coaxial to the rotor and engaging each other.

An apparatus of this type serves for example as a seal head or rotary feed coupling to transmit a fluid from stationary to rotary machine elements and/or vice versa. As a result of technical advances the requirements for rotary feedthroughs are increasing regularly. In particular shop machines with spindle rotation speeds have increased in the last decade from about 4000 to 6000 RPM to 20,000 to 50,000 RPM. In addition the pressures of

500 to 50

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